

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re patent application of:	) Attorney Docket No.: F-670
James A. Hough, et al.	) Customer No.: 00919
	) Examiner: Shay L. KARLS
Serial No.: 10/707,470	) Group Art Unit: 1744
Filed: December 16, 2003	)
Confirmation # 1469	) Date: October 6, 2010

Title: OPTICAL SENSOR CLEANER

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Commissioner for Patents  
Alexandria, VA 22313-1450

**APPELLANTS' BRIEF ON APPEAL**

Sir:

This is an appeal pursuant to 35 U.S.C. § 134 and 37 C.F.R. §§ 41.31 et seq. from the final rejection of claims 1-4, 6-8, 10-15 and 17-23 of the above-identified application mailed April 6, 2010. This Brief is in furtherance of the Notice of Appeal transmitted in this case on July 6, 2010. A petition for one month extension of time to respond and fee are transmitted herewith. Accordingly, this brief is timely filed. The fee for submitting this Brief is \$540.00 and the fee is submitted herewith. The Commissioner is hereby authorized to charge any additional fees that may be required for this appeal or to make this brief timely or credit any overpayment to Deposit Account No. **16-1885**.



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I. Real Party in Interest

The real party in interest in this appeal is Pitney Bowes Inc., a Delaware corporation, the assignee of this application.

II. Related Appeals and Interferences

There are no pending appeals or interferences known to Appellants, their legal representative, or the assignee that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal. A prior decision of the Board of Patent Appeals and Interferences was mailed on July 24, 2009. A copy is attached.

III. Status of Claims

Claims 1-4, 6-8, 10-15 and 17-23 are in the case and under final rejection of the Examiner.

Claims 5, 9 and 16 are canceled without prejudice or disclaimer.

Claims 1-3, 7-8, 15, 18 and 21 are in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

Claim 4 is in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843") and further in view of U.S. Patent No. 6,353,233 to Kikuchi, et al. ("Kikuchi '233").

Claim 6 is in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").



Claims 10, 13-14 and 17 are in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865").

Claims 11-12 are in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

Claim 19 is in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843") and further in view of U.S. Patent No. 4,055,029 to Kalbow ("Kalbow '029").

Claim 20 is in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

Claim 22 is in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843") and further in view of U.S. Patent No. 6,529,704 to Kurita, et al. ("Kurita '704").

Claim 23 is in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

Appellants hereby appeal the final rejection of claims 1-4, 6-8, 10-15 and 17-23.



#### IV. Status of Amendments

There are no amendments to the claims filed subsequently to the Final Office Action of April 6, 2010. Therefore, the claims set forth in Appendix A to this brief are those as set forth before the final rejection.

#### V. Summary of Claimed Subject Matter

Appellants' invention as presently claimed relates generally to optical sensor cleaners for cleaning debris from optical sensors located in a system including a paper feed path with rollers. See Specification at ¶¶ 0001-0007.

An illustrative embodiment is described with reference to FIG. 2A showing a perspective view of an illustrative embodiment of an optical sensor cleaner for use in a system having a feed path. See Specification at ¶¶ 0015-0026.

Referring to FIG. 2A shown here, the illustrative optical sensor cleaner includes a sheet substrate 110 that is 0.0625 inches in thickness E comprising ABS material and is 8.5 inches in the major edge and 5 inches in the minor edge. Cleaning strips 112, 114, 116, 118 and 119 include lint-free, lead-free, non-abrasive, open cell foam attached to the substrate 110 using a permanent adhesive. The substrate 110 has a leading section and a trailing section F that is 1 inch in the major edge direction A. The height B of the foam cleaning strips is 0.75 inches. The foam strips are 0.5 inches wide C and are evenly spaced by distance D. As shown, bristles 117 are used on top of strip 118 and handle 101 is provided on the substrate. Other alternatives are described including three cleaning strips that are evenly spaced 2.5 inches apart on a substrate having a one-inch lead space and a one-inch trailing space. See Specification at ¶¶ 0015-0026.

As the optical sensor cleaner is fed through the paper path, the strips compress through the roller. As each strip begins to exit the roller, the strip immediately expands to contact the sensor, thereby wiping the sensor clean. The open cell foam strips have a width of approximately one half inch and are spaced apart approximately two and one half inches on the substrate. In a preferred embodiment, the cleaning strips include open cell foam because it will more quickly return to its expanded height as it exits from the transport rollers than would closed-cell foam. See Specification at ¶¶ 0015-0016.





1. A cleaning apparatus (100) for cleaning non-contact optical sensors in a paper handling device comprising (FIGs. 1-2, ¶¶0019-34):  
a substrate sheet (110) for feeding through a feed path of the paper handling device having a substrate width and a substrate length, a first surface and a second surface and having a substrate thickness, wherein the first surface has a front edge, a rear edge, a left edge and a right edge;  
a first strip of material (119) having a first strip height and attached to the first surface of the substrate sheet across the entire width of the substrate and oriented perpendicular to the feed path, wherein the first strip will vertically compress when drawn through a roller nip and partially



vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path;

a second strip of material (118) having a first strip height and attached to the first surface of the substrate sheet across the entire width of the substrate and oriented perpendicular to the feed path, wherein the second strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path; and, wherein,

the first strip (119) is separated from the second strip (118) in the direction of the feed path by a first distance; and

the first strip (119) height is relatively large compared to the substrate (110) thickness and the first strip height when partially decompressed is sufficiently large to extend below the feed path to engage the optical sensors, and wherein the substrate length is greater than the substrate width.

Independent claim 23 recites:

23. A cleaning apparatus (100) for cleaning non-contact optical sensors in a paper handling device comprising (FIGs. 1-2, ¶¶0019-34):

a substrate sheet (110) for feeding through a feed path of the paper handling device having a first surface and a second surface and having a substrate thickness, wherein the first surface has a front edge, a rear edge, a left edge and a right edge;

a first strip of material (119) having a first strip height and attached to the first surface of the substrate sheet and oriented perpendicular to the feed path, wherein the first strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path;

a second strip of material (118) having a first strip height and attached to the first surface of the substrate sheet and oriented perpendicular to the feed path, wherein the second strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path; and, wherein,

the first strip (119) is separated from the second strip in the direction of the feed path by a first distance; and

the first strip (119) height is relatively large compared to the substrate thickness and the first strip height when partially decompressed is sufficiently large to extend below the feed path to engage the optical sensors, wherein,

the first surface is an upper surface and the second surface is a lower surface,

the first strip of material (119) comprises open cell foam, and



the first strip of material (119) comprises lint-free, lead-free, non-abrasive, open cell foam.

Additional features of the invention are discussed below in the Argument section of this Brief. This summary is not intended to supplant the description of the claimed subject matter as provided in the claims as recited in Appendix A, as understood in light of the entire specification.

VI. Grounds of Rejection to Be Reviewed on Appeal

A Whether Claims 1-3, 7-8, 15, 18 and 21 are unpatentable under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

B Whether Claim 4 is unpatentable under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843") and further in view of U.S. Patent No. 6,353,233 to Kikuchi, et al. ("Kikuchi '233").

C Whether Claim 6 is unpatentable under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

D Whether Claims 10, 13-14 and 17 are unpatentable under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865").

E Whether Claims 11-12 are unpatentable under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

F Whether Claim 19 is unpatentable under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843") and further in view of U.S. Patent No. 4,055,029 to Kalbow ("Kalbow '029").



G Whether Claim 20 is unpatentable under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

H Whether Claim 22 is unpatentable under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843") and further in view of U.S. Patent No. 6,529,704 to Kurita, et al. ("Kurita '704").

I Whether Claim 23 is unpatentable under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

## VII. Argument

As discussed in detail below, Appellants respectfully submit that the final rejection of claims 1-4, 6-8, 10-15 and 17-23 does not meet the threshold burden of presenting a prima facie case of unpatentability. Accordingly, Appellants are entitled to grant of those claims. In re Oetiker, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992).

### A Claims 1-3, 7-8, 15, 18 and 21 are not Unpatentable under 35 U.S.C. § 103(a)

Claims 1-3, 7-8, 15, 18 and 21 are in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

Appellants respectfully disagree with the rejection and urge its reversal for at least the reasons stated below.

In rejecting a claim under 35 U.S.C. §103, the Examiner is charged with the initial burden for providing a factual basis to support the obviousness conclusion. *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967); *In re Lunsford*, 375 F.2d 385,



148 USPQ 721 (CCPA 1966); *In re Freed*, 425 F.2d 785, 165 USPQ 570 (CCPA 1970). The Examiner is also required to explain how and why one having ordinary skill in the art would have been led to modify an applied reference and/or combine applied references to arrive at the claimed invention. *In re Ochiai*, 37 USPQ2d 1127 (Fed. Cir. 1995); *In re Deuel*, 51 F.3d 1552, 34 USPQ 1210 (Fed. Cir. 1995); *In re Fritch*, 972 F.2d 1260, 23 USPQ 1780 (Fed. Cir. 1992); *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). See *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. \_\_\_\_ , 127 S.Ct. 1727, 1735 (2007) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.* (quoting Kahn, 441 F.3d at 988)). See also, *Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1357 (Fed. Cir. 2007) (To avoid improper use of hindsight, the Examiner must articulate "a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does" in an obviousness determination. (quoting *KSR*, 127 S. Ct. at 1731)).

See also, *In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006)(Most inventions arise from a combination of old elements and each element may often be found in the prior art. However, mere identification in the prior art of each element is insufficient to defeat the patentability of the combined subject matter as a whole). Additionally, if the references when combined suggest an inoperative device, the Examiner may not use the references to establish a prima facie rejection. *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339 (Fed. Cir. 2001)(if references taken in combination would produce a "seemingly inoperative device," then such references teach away from the combination and cannot serve as predicates for a prima facie case of obviousness). Moreover, here, the cited references expressly teach away from the combination urged by the examiner and thus the combination is improper. See e.g., MPEP 2145 X.D, citing *In re Grasselli*, 713 F.2d 731, 743 (Fed. Cir. 1983).

Independent claim 1 recites:

1. A cleaning apparatus for cleaning non-contact optical sensors in a paper handling device comprising:



a substrate sheet for feeding through a feed path of the paper handling device having a substrate width and a substrate length, a first surface and a second surface and having a substrate thickness, wherein the first surface has a front edge, a rear edge, a left edge and a right edge;

a first strip of material having a first strip height and attached to the first surface of the substrate sheet across the entire width of the substrate and oriented perpendicular to the feed path, wherein the first strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path;

a second strip of material having a first strip height and attached to the first surface of the substrate sheet across the entire width of the substrate and oriented perpendicular to the feed path, wherein the second strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path; and, wherein,

the first strip is separated from the second strip in the direction of the feed path by a first distance; and

the first strip height is relatively large compared to the substrate thickness and the first strip height when partially decompressed is sufficiently large to extend below the feed path to engage the optical sensors, and wherein the substrate length is greater than the substrate width. (emphasis added).

Starting on page 2 of the Office Action, The Examiner relies upon Beeson '865 and Gelardi '843 to suggest an obviousness rejection. There is apparently no discussion in Beeson '865 of cleaning optical sensors. The instant specification teaches the benefits of the claimed physical configuration of allowing the relatively narrow strips to expand directly after passing paper path feed rollers to contact optical sensors that are relatively distant from the feed path. Here, one of skill in the art would not look to Gelardi '843 to modify Beeson '865 because Beeson describes print head cleaners that would have relatively short cleaning surfaces and not extent to a sensor region. Accordingly, the combination would not work for the intended purpose.

For example, the positively claimed limitations require that the first strip partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path. Moreover, a felt pad as taught in Beeson '869 might not even compress through a nip as required by the present claim.

Appellants also respectfully submit that Beeson '865 is not suitable for its intended purpose in a system having a feed path with roller nips since the solvent would



be pressed out in the nip. Accordingly, it would not be obvious to make the combination suggested by the Examiner.

Accordingly, Appellants respectfully submit that the Examiner has failed to establish a prima facie case for an anticipation rejection of claim 1. Additionally, Appellants respectfully submit that dependent claims 2-3, 7-8, 15, 18 and 21 are patentable over the cited reference for at least the same reasons discussed with reference to the applicable independent claim and any intervening claims.

With regard to claim 5, the Examiner has not established that Beeson '869 teaches "the first strip of material comprises lint-free, lead-free, non-abrasive, open cell foam."

Accordingly, Appellants respectfully submit that claims 1-3, 7-8, 15, 18 and 21 are patentable over the cited reference and that the final rejection is in error and should be reversed.

**B     Claim 4 is not Unpatentable under 35 U.S.C. § 103(a)**

Claim 4 is in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843") and further in view of U.S. Patent No. 6,353,233 to Kikuchi, et al. ("Kikuchi '233").

Appellants respectfully disagree with the rejection and urge its reversal for at least the reasons stated below.

Initially, Appellants respectfully submit that dependent claim 4 is patentable over the cited references for at least the reasons described above with reference to independent claim 1 and any intervening claims.

Moreover, the recited configuration is described as advantageous to clean optical sensors relatively distant from the paper path. Because Beeson '865 describes only cleaning the relatively near print heads, the recited configuration is not obvious over the cited reference.



Accordingly, Appellants respectfully submit that the Examiner has failed to establish a prima facie case for an obviousness rejection. Appellants respectfully submit that claim 4 is patentable over the available cited references and that the final rejection is in error and should be reversed.

C Claim 6 is not Unpatentable under 35 U.S.C. § 103(a)

Claim 6 is in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

Appellants respectfully disagree with the rejection and urge its reversal for at least the reasons stated. Initially, Appellants respectfully submit that dependent claim 6 is patentable over the cited references for at least the reasons described above with reference to independent claim 1

Accordingly, Appellants respectfully submit that the Examiner has failed to establish a prima facie case for an obviousness rejection. Appellants respectfully submit that claim 6 is patentable over the available cited reference and that the final rejection is in error and should be reversed.

D Claims 10, 13-14 and 17 are not Unpatentable under 35 U.S.C. § 103(a)

Claims 10, 13-14 and 17 are in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865").

Appellants respectfully disagree with the rejection and urge its reversal for at least the reasons stated.

Initially, Appellants respectfully submit that dependent claims 10, 13-14 and 17 are patentable over the cited references for at least the reasons described above with reference to independent claim 1 and any intervening claims.



Appellants respectfully submit that Beeson '865 teaches away from using a relatively high strip height because it must clean the print heads.

Moreover, the recited configuration is described as advantageous to clean optical sensors relatively distant from the paper path. Because Beeson '865 describes only cleaning the relatively near print heads, the recited configuration is not obvious over the cited reference.

Accordingly, Appellants respectfully submit that the Examiner has failed to establish a prima facie case for an obviousness rejection. Appellants respectfully submit that claims 10, 13-14 and 17 are patentable over the available cited reference and that the final rejection is in error and should be reversed.

**E     Claims 11-12 are not Unpatentable under 35 U.S.C. § 103(a)**

Claims 11-12 are in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

Appellants respectfully disagree with the rejection and urge its reversal for at least the reasons stated.

Initially, Appellants respectfully submit that dependent claims 11-12 are patentable over the cited references for at least the reasons described above with reference to independent claim 1 and any intervening claims.

Accordingly, Appellants respectfully submit that the Examiner has failed to establish a prima facie case for an obviousness rejection. Appellants respectfully submit that claims 11-12 are patentable over the available cited reference and that the final rejection is in error and should be reversed.

**F     Claim 19 is not Unpatentable under 35 U.S.C. § 103(a)**

Claim 19 is in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent



No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843") and further in view of U.S. Patent No. 4,055,029 to Kalbow ("Kalbow '029").

Appellants respectfully disagree with the rejection and urge its reversal for at least the reasons stated.

Initially, Appellants respectfully submit that dependent claim 19 is patentable over the cited references for at least the reasons described above with reference to independent claim 1.

Accordingly, Appellants respectfully submit that the Examiner has failed to establish a prima facie case for an obviousness rejection. Appellants respectfully submit that claim 19 is patentable over the available cited references and that the final rejection is in error and should be reversed.

G Claim 20 is not Unpatentable under 35 U.S.C. § 103(a)

Claim 20 is in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

Appellants respectfully disagree with the rejection and urge its reversal for at least the reasons stated.

Initially, Appellants respectfully submit that dependent claim 20 is patentable over the cited references for at least the reasons described above with reference to independent claim 1. Appellants respectfully submit that Beeson '865 is not suitable for its intended purpose in a system having such a notched surface. Accordingly, it would not be obvious to make the combination suggested by the Examiner.

Moreover, the recited configuration is described as advantageous to clean optical sensors relatively distant from the paper path. Because Beeson '865 describes only cleaning the relatively near print heads, the recited configuration is not obvious over the cited reference.



Accordingly, Appellants respectfully submit that the Examiner has failed to establish a prima facie case for an obviousness rejection. Appellants respectfully submit that claim 20 is patentable over the available cited references and that the final rejection is in error and should be reversed.

H Claim 22 is not Unpatentable under 35 U.S.C. § 103(a)

Claim 22 is in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843") and further in view of U.S. Patent No. 6,529,704 to Kurita, et al. ("Kurita '704").

Appellants respectfully disagree with the rejection and urge its reversal for at least the reasons stated.

Initially, Appellants respectfully submit that dependent claim 22 is patentable over the cited references for at least the reasons described above with reference to independent claim 1. Appellants respectfully submit that Gelardi '843 does not teach or suggest strips that would decompress after passing through a roller as presently claimed.

Moreover, the recited configuration is described as advantageous to clean optical sensors relatively distant from the paper path. Because Beeson '865 describes only cleaning the relatively near print heads, the recited configuration is not obvious over the cited reference.

Accordingly, Appellants respectfully submit that the Examiner has failed to establish a prima facie case for an obviousness rejection. Appellants respectfully submit that claim 20 is patentable over the available cited reference and that the final rejection is in error and should be reversed.



I      Claim 23 is not Unpatentable under 35 U.S.C. § 103(a)

Claim 23 is in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by U.S. Patent No. 5,589,865 to Beeson ("Beeson '865") in view of U.S. Patent No. 5,457,843 to Gelardi, et al. ("Gelardi '843").

Appellants respectfully disagree with the rejection and urge its reversal for at least the reasons stated.

Independent claim 23 recites:

23. A cleaning apparatus for cleaning non-contact optical sensors in a paper handling device comprising:

a substrate sheet for feeding through a feed path of the paper handling device having a first surface and a second surface and having a substrate thickness, wherein the first surface has a front edge, a rear edge, a left edge and a right edge;

a first strip of material having a first strip height and attached to the first surface of the substrate sheet and oriented perpendicular to the feed path, wherein the first strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path;

a second strip of material having a first strip height and attached to the first surface of the substrate sheet and oriented perpendicular to the feed path, wherein the second strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path; and, wherein,

the first strip is separated from the second strip in the direction of the feed path by a first distance; and

the first strip height is relatively large compared to the substrate thickness and the first strip height when partially decompressed is sufficiently large to extend below the feed path to engage the optical sensors, wherein,

the first surface is an upper surface and the second surface is a lower surface,

the first strip of material comprises open cell foam, and  
the first strip of material comprises lint-free, lead-free, non-abrasive, open cell foam. (emphasis added).

Starting on page 8 of the Office Action, The Examiner relies upon Beeson '865 and Gelardi '843 to suggest an obviousness rejection.



Initially, Appellants respectfully note that the Board reversed the Examiner's anticipation rejection of prior claim 5 (current independent claim 23) over Beeson '865 such that all of the claimed elements are not taught or inherent in Beeson '865. Moreover, the Examiner has cited to Gelardi '843, but not applied such reference or described how such reference is combinable with Beeson '865 to show those missing elements and then describe why such combination would be obvious.

There is apparently no discussion in Beeson '865 of cleaning optical sensors. Here, one of skill in the art would not look to Gelardi '843 to modify Beeson '865 because Beeson describes print head cleaners that are said to "scrub" the print heads and thus not wipe sensors cleaned as the foam presently recited would accomplish. Accordingly, the combination would not work for the intended purpose and Beeson '865 would appear to teach away from non-abrasive foam.

Moreover, the recited configuration is described as advantageous to clean optical sensors relatively distant from the paper path. Because Beeson '865 describes only cleaning the relatively near print heads, the recited configuration is not obvious over the cited reference.

Accordingly, Appellants respectfully submit that the Examiner has failed to establish a prima facie case for an obviousness rejection. Appellants respectfully submit that claim 23 is patentable over the available cited reference and that the final rejection is in error and should be reversed.

#### IX. Conclusion

In Conclusion, Appellants respectfully submit that the final rejection of claims 1-4, 6-8, 10-15 and 17-23 is in error for at least the reasons given above and should, therefore, be reversed.



Respectfully submitted on behalf of Appellants,

/George M. Macdonald/

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**VIII – CLAIMS APPENDIX**  
**APPENDIX A**

1. A cleaning apparatus for cleaning non-contact optical sensors in a paper handling device comprising:

a substrate sheet for feeding through a feed path of the paper handling device having a substrate width and a substrate length, a first surface and a second surface and having a substrate thickness, wherein the first surface has a front edge, a rear edge, a left edge and a right edge;

a first strip of material having a first strip height and attached to the first surface of the substrate sheet across the entire width of the substrate and oriented perpendicular to the feed path, wherein the first strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path;

a second strip of material having a first strip height and attached to the first surface of the substrate sheet across the entire width of the substrate and oriented perpendicular to the feed path, wherein the second strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path; and, wherein,

the first strip is separated from the second strip in the direction of the feed path by a first distance; and

the first strip height is relatively large compared to the substrate thickness and the first strip height when partially decompressed is sufficiently large to extend below the feed path to engage the optical sensors, and wherein the substrate length is greater than the substrate width.

2. The apparatus of claim 1, wherein,  
the first surface is an upper surface and the second surface is a lower surface.

3. The apparatus of claim 2, wherein,  
the first strip of material comprises open cell foam.



4. The apparatus of claim 3, wherein,  
the first strip of material is closer to the front edge of the substrate sheet than the second strip of material; and  
the second strip of material comprises open cell foam and brush bristles.

6. The apparatus of claim 1, wherein,  
the substrate sheet has approximately the planar dimensions of a number 10 envelope.

7. The apparatus of claim 1, further comprising,  
a leading edge handle on the substrate sheet.

8. The apparatus of claim 1, wherein,  
the substrate sheet has approximately the planar dimensions of a letter sized sheet of paper and the first strip height is more than double the substrate thickness.

10. The apparatus of claim 1, wherein,  
the first strip height is approximately twelve times the substrate thickness; and  
the first strip having a width that is relatively narrow compared to a diameter of a roller in order to allow the first strip to vertically decompress when exiting the roller nip.

11. The apparatus of claim 1, wherein,  
the substrate comprises a semi-rigid vinyl material.

12. The apparatus of claim 1, wherein,  
the substrate comprises an ABS material of approximately 0.0625 inches thickness.

13. The apparatus of claim 1, wherein,



the first strip having a first strip width; and wherein  
the first distance is approximately five times the first strip width.

14. The apparatus of claim 13, wherein,  
the first strip width is 0.5 inches.

15. The apparatus of claim 1, wherein,  
the first strip has the shape of a rectangular prism.

17. The apparatus of claim 1, wherein,  
the first strip height is approximately 0.75 inches, the first strip having a width of  
0.5 inches; and  
wherein the first distance is 2.5 inches.

18. The apparatus of claim 1, wherein,  
at least one of the first and second strips has the shape of a triangular prism.

19. The apparatus of claim 1, wherein,  
the first strip includes a top surface and has the shape of a rectangular prism  
having at least one notch in the top surface.

20. The apparatus of claim 1, wherein,  
the first strip includes a leading edge and has the shape of a rectangular prism  
having an angled portion of the leading edge removed.

21. The apparatus of claim 1, wherein,  
the first strip having a width that is relatively narrow compared to the first  
distance in order to allow the first strip to vertically decompress when exiting the roller  
nip.



22. The apparatus of claim 1, further comprising,

a third strip of material having a first strip height and attached to the first surface of the substrate sheet across the entire width of the substrate and oriented perpendicular to the feed path, wherein the second strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path, wherein the second strip is separated from the third in the direction of the feed path by a first distance;

a fourth strip of material having a first strip height and attached to the first surface of the substrate sheet across the entire width of the substrate and oriented perpendicular to the feed path, wherein the second strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path, wherein the third strip is separated from the fourth in the direction of the feed path by a first distance; and

a fifth strip of material having a first strip height and attached to the first surface of the substrate sheet across the entire width of the substrate and oriented perpendicular to the feed path, wherein the second strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path, wherein the fourth strip is separated from the fifth in the direction of the feed path by a first distance, wherein

the first, second, third, fourth and fifth strips of material comprise lint-free, lead-free, non-abrasive, open cell foam and the second strip of material includes brush bristles.

23. A cleaning apparatus for cleaning non-contact optical sensors in a paper handling device comprising:

a substrate sheet for feeding through a feed path of the paper handling device having a first surface and a second surface and having a substrate thickness, wherein the first surface has a front edge, a rear edge, a left edge and a right edge;

a first strip of material having a first strip height and attached to the first surface of the substrate sheet and oriented perpendicular to the feed path, wherein the first strip



will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path;

a second strip of material having a first strip height and attached to the first surface of the substrate sheet and oriented perpendicular to the feed path, wherein the second strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path; and, wherein,

the first strip is separated from the second strip in the direction of the feed path by a first distance; and

the first strip height is relatively large compared to the substrate thickness and the first strip height when partially decompressed is sufficiently large to extend below the feed path to engage the optical sensors, wherein,

the first surface is an upper surface and the second surface is a lower surface,

the first strip of material comprises open cell foam, and

the first strip of material comprises lint-free, lead-free, non-abrasive, open cell foam.



**Appendix IX – Evidence Appendix**

None



**Appendix X – Related Proceedings Appendix**

A prior decision of the Board of Patent Appeals and Interferences was mailed on July 24, 2009. A copy is attached.





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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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KARLS, SHAY LYNN

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JAMES A. HOUGH and TESHAMICHIEL FESHAZION

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Appeal 2009-002932  
Application 10/707,470  
Technology Center 3700

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Decided<sup>1</sup>: July 22, 2009

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Before JAMESON LEE, SALLY C. MEDLEY and  
MICHAEL P. TIERNEY, *Administrative Patent Judges*.

MEDLEY, *Administrative Patent Judge*.

DECISION ON APPEAL

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<sup>1</sup> The two month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).



A. STATEMENT OF THE CASE

Pitney Bowes Inc. (“Pitney Bowes”) the real party in interest, seeks review under 35 U.S.C. § 134(a) of a Final Rejection of claims 1-15 and 17-21. We have jurisdiction under 35 U.S.C. § 6(b). We affirm-in-part.

References Relied on by the Examiner

Kalbow	4,055,029	Oct. 25, 1977
Gelardi et al. (“Gelardi”)	5,457,843	Oct. 17, 1995
Beeson	5,589,865	Dec. 31, 1996
Kikuchi et al. (“Kikuchi”)	6,353,233	Mar. 5, 2002

Rejections on Appeal

The Examiner rejected claims 1-3, 5, 7, 8, 10, 15 and 21 under 35 U.S.C. § 102(b) as anticipated by Beeson.

The Examiner rejected claim 4 as unpatentable under 35 U.S.C. § 103(a) over Beeson and Kikuchi.

The Examiner rejected claims 6, 9, 11-14, 17 and 20 as unpatentable under 35 U.S.C. § 103(a) over Beeson.

The Examiner rejected claim 18 as unpatentable under 35 U.S.C. § 103(a) over Beeson and Gelardi.

The Examiner rejected claim 19 as unpatentable under 35 U.S.C. § 103(a) over Beeson and Kalbow.

Pitney Bowes argues separately several different groups of claims, which shall become apparent in the analysis.

The Invention

Pitney Bowes discloses a cleaner for an optical sensor in a mailing machine. The cleaner includes a substrate sheet with strips of open cell foam adhered across the width of the sheet. The strips of open cell foam



each have a height which is vertically compressed when passing through paper feed path rollers. Spec. ¶¶ 0007, 0016-0018, 0021-0023, 0025.

Claim 1, reproduced from the Claim Appendix of the Appeal Brief, reads as follows:

A cleaning apparatus for cleaning non-contact optical sensors in a paper handling device comprising:

a substrate sheet for feeding through a feed path of the paper handling device having a first surface and a second surface and having a substrate thickness, wherein the first surface has a front edge, a rear edge, a left edge and a right edge;

a first strip of material having a first strip height and attached to the first surface of the substrate sheet and oriented perpendicular to the feed path, wherein the first strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path;

a second strip of material having a first strip height and attached to the first surface of the substrate sheet and oriented perpendicular to the feed path, wherein the second strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path; and, wherein,

the first strip is separated from the second strip in the direction of the feed path by a first distance; and

the first strip height is relatively large compared to the substrate thickness and the first strip height when partially decompressed is sufficiently large to extend below the feed path to engage the optical sensors.

## B. ISSUES

1. Has Pitney Bowes shown that the Examiner incorrectly found that Beeson describes (1) a first strip that will function to vertically compress when drawn through a roller nip and partially vertically



- decompress when exiting a roller nip; (2) a first strip comprising lint-free, lead-free, non-abrasive open cell foam; and (3) a handle?
2. Has Pitney Bowes shown that Beeson teaches away from (1) using open cell foam for the second strip; (2) using a substrate with the planar dimensions of a number 10 envelope; (3) a first strip height approximately twelve times the substrate thickness; (4) a first strip height of 0.75 inches; (5) a first strip width of 0.5 inches; (6) a first distance of 2.5 inches; (7) a substrate of semi-rigid vinyl or ABS material; (8) a strip having the shape of a triangular prism; (9) a strip having the shape of a rectangular prism with at least one notch in the top surface; and (10) a strip having the shape of a rectangular prism having an angled portion of the leading edge removed?
3. Has Pitney Bowes shown that Kikuchi teaches away from putting bristles through a roller?

C. FINDINGS OF FACT ("FF")

Beeson

1. Beeson describes, referring to Beeson's figure 4 reproduced below [numbers from figure 4 inserted], a cleaning media [30] for cleaning dried ink and contaminants on a printhead surface that includes a solvent pad [34] and an absorbent pad [36] attached to a backing sheet [32]. Col. 4, ll. 57-62.

Beeson's figure 4 is below:



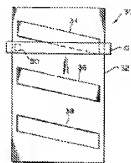


Figure 4 depicts a cleaning media.

2. Each pad [34], [36] is compliant and has a thickness (i.e., height) approximately twice the normal spacing distance between a printhead and conventional media (i.e., printing paper) such as 1 mm. Col. 2, ll. 54-57; col. 5, ll. 39-44.
3. The solvent pad [34] is formed of a compliant material having low abrasive characteristics, such as a tight-celled foam sponge. Col. 5, ll. 8-11.
4. The absorbent pad [36] is an antistatic pad having low abrasive characteristics, such as lint-free felt. Col. 5, ll. 21-23.
5. Beeson describes that a solvent pad [34] and an absorbent pad [36] are each 2 mm thick. Col. 5, ll. 43-44.
6. In use, the cleaning media [30] is fed into the printer and moves through the printer along the media transport path. Col. 6, ll. 19-25.
7. The solvent pad [34] first encounters the printhead [10] and brushes against the printhead [10] because the solvent pad thickness [34] exceeds the separation distance between normal media and the printhead [10]. Col. 6, ll. 26-33.
8. The absorbent pad [36] next encounters the printhead [10] and brushes against the printhead [10] since the thickness of the absorbent pad



[36] also exceeds the separation distance between normal media and the printhead [10]. Col. 6, ll. 44-52.

9. Beeson depicts, referring to Beeson's figure 7 reproduced below [numbers from figure 7 inserted], the solvent pad [34] and absorbent pad [36] are thicker than the separation distance between the backing sheet [32] and the printhead [10] after passing beyond the printhead [10] along the media transport path.

Beeson's figure 7 is below:

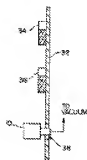


Figure 7 depicts the cleaning media in the media transport path.

10. The backing sheet [32] is of standard paper size dimensions and cardstock weight; but other dimensions may also be used. Col. 4, ll. 65-67.
11. Once the cleaning media [30] passes through the printer, the media [30] is discarded or recycled. Col. 7, ll. 59-61.

#### Kikuchi

12. Kikuchi describes a cleaning sheet with a main sheet body having brushes mounted thereon. Col. 2, l. 66-col. 3, l. 30.
13. The brushes are formed in the longitudinal direction of the main sheet body which is fed longitudinally through a bill identification unit. Col. 3, ll. 16-17; fig. 8.



14. Kikuchi describes that the brushes clean contamination such as dust attached to sensors. Col. 4, ll. 46-53.

Kalbow

15. Kalbow describes, referring to Kalbow's figure 1 reproduced below [numbers from figure 1 inserted], an open-cell foam plastic sponge pad [10] with a plurality of parallel grooves [12], [13] formed in the surface of the pad [10]. Col. 3, ll. 39-49.

Kalbow's figure 1 is below:

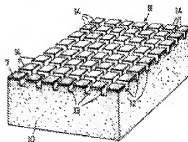


Figure 1 depicts a sponge with a grooved surface.

16. Rectangular or square boss-like protuberances [14] are formed by the grooves [12], [13] in the working or scrubbing surface of foam plastic pad [10]. Col. 3, ll. 50-53.
17. The peripheral edge surfaces of the bosses are disposed at right angles to the upper or peripheral edges giving the bosses sharp contour or peripheral edges which are instrumental in increasing the efficiency of the bosses during cleaning, scouring or polishing. Col. 1, ll. 47-54.
- D. PRINCIPLES OF LAW

“[I]t is elementary that the mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art.” *In re Swinehart*, 439 F.2d 210, 212-213 (CCPA 1971). When the structural



limitations are all found in the prior art, the absence of a disclosure in the prior art relating to function does not defeat the finding of anticipation. *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997) (...“Schreiber’s contention that his structure will be used to dispense popcorn does not have patentable weight if the structure is already known, regardless of whether it has ever been used in any way in connection with popcorn.”).

“A [prior art] reference must be considered for everything it teaches by way of technology and is not limited to the particular *invention* it is describing and attempting to protect.” *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 907 (Fed. Cir. 1985). The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned, as they are part of the literature and a relevant for all they contain. *In re Heck*, 699 F.2d 1331, 1333 (Fed. Cir. 1983), citing *In re Lemelson*, 397 F.2d 1006, 1009 (CCPA 1968).

“[T]he PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant’s specification.” *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). But, “limitations are not to be read into the claims from the specification.” *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (citation omitted).

The Supreme Court has rejected the rigid application of the “teaching, suggestion, or motivation” (TSM) test, instead favoring the “expansive and flexible approach” used by the Court. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 415 (2007). Based on its precedent, the Court reaffirmed the



principle that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* at 416.

“Under the proper legal standard, a reference will teach away when it suggests that the developments flowing from its disclosures are unlikely to produce the objective of the applicant's invention.” *Syntex (U.S.A) v. Apotex, Inc.*, 407 F.3d 1371, 1380 (Fed. Cir. 2005), citing *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994).

#### E. ANALYSIS

##### Anticipation of Claims 1-3, 8, 10, 15 and 21 by Beeson

Independent claim 1 is representative and recites (disputed limitations in *italics*): “a substrate sheet . . . a first strip of material having a first strip height and attached to the first surface of the substrate sheet and oriented perpendicular to the feed path, wherein the first strip will vertically compress when drawn through a roller nip and *partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path . . .*” Claim App’x. 16.

The Examiner finds that Beeson describes the structure recited in claim 1 including a substrate sheet [32] with first [36] and second [34] strips. Final Rejection 2; Ans. 3. The Examiner finds that the first [36] and second [34] strips of material will compress and decompress since they are compliant and made of a foam sponge and absorbent felt respectively. Ans. 8-9. The Examiner finds that if Beeson’s substrate was used in the environment as claimed (i.e., through a roller nip), it would be capable of functioning in the manner intended by the claimed invention since Beeson teaches all the structural elements of the claim. Ans. 9.



Pitney Bowes argues that Beeson does not describe a roller nip or vertical decompression beyond a nip for cleaning. Br. 8. Pitney Bowes argues that “it would appeal (sic) that the much denser ‘tight-celled’ foam taught by Beeson would not so decompress . . . .” Br. 8. Pitney Bowes also argues that regarding Beeson’s second strip of lint-free felt “[i]t appears that felt would not so decompress.” Br. 9. Pitney Bowes further argues that “a felt pad as taught in Beeson [] might not even compress through a nip . . . .” Br. 9.

Pitney Bowes’ arguments are unpersuasive. As explained by the Examiner, the claim language does not positively recite a roller nip. Instead, the claim defines a cleaning apparatus for use in a paper handling device which includes a roller nip. The claim recitation “the first strip will vertically compress when drawn through a roller nip and partially vertically decompress when exiting the roller nip in order to engage the optical sensors below the feed path” describes the function of the cleaning apparatus strip when drawn through the paper handling device. When the structural limitations are all found in the prior art, the absence of a disclosure in the prior art relating to function does not defeat the finding of anticipation.

Pitney Bowes does not direct us to objective evidence to demonstrate that Beeson’s strip of “tight-celled” foam sponge material and Beeson’s strip of felt would not inherently be capable of compressing and decompressing. Argument of counsel cannot take the place of evidence lacking in the record. *Meitzner v. Mindick*, 549 F.2d 775, 782 (CCPA 1977); *see also In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974). At the time of the invention, one with ordinary skill would have recognized that Beeson’s tight-celled foam sponge material designed to hold solvent and the lint free felt material



designed to be absorbent are both capable of compressing and decompressing. Moreover, Beeson describes that the pads [34], [36] are compressed by the printhead [10] when the cleaning media [30] is run along the media transport path of the printer since the thickness of the pads [34], [36] exceeds the separation distance between the printhead [10] and conventional media. Beeson, col. 6, ll. 26-33 and ll. 44-52. Beeson also describes that the solvent pad [34] and absorbent pad [36] are thicker than the separation distance between the backing sheet [32] and the printhead [10] after passing beyond the printhead [10] along the media transport path. Beeson, fig. 7.

Pitney Bowes also argues that if Beeson included roller nips, the solvent on the strips would splash on the rollers and would not clean the print head as described. Br. 8. Pitney Bowes' arguments are unpersuasive. "A [prior art] reference must be considered for everything it teaches by way of technology and is not limited to the particular invention it is describing and attempting to protect." *EWP*. The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned, as they are part of the literature and a relevant for all they contain. *Heck*. The intended purpose of Beeson need not be preserved.

For all these reasons, Pitney Bowes has not shown the Examiner erred in finding claims 1-3, 8, 10, 15 and 21 anticipated by Beeson.

Anticipation of Claim 7 by Beeson

Claim 7 is dependent on claim 1 and further recites: "a leading edge handle on the substrate sheet." Claim App'x. 17.



The Examiner finds that Beeson describes a substrate sheet with a leading edge handle because the edge closest to opening [38] is considered the handle since any portion that can be gripped by a user's hand can be considered a handle. Final Rejection 2; Ans. 3.

Pitney Bowes argues that Beeson does not teach or suggest a separate handle. Br. 8. Pitney Bowes further argues that such limitation is not met simply by the substrate since that interpretation would give no meaning to the element. Br. 9.

Pitney Bowes' arguments are not commensurate in scope with the claim limitations. Claim 7 does not recite a separate handle nor recite any structure for the handle. Also, Pitney Bowes has not directed us to an explicit definition in its Specification demonstrating a special meaning for the term handle. Here, the broadest reasonable meaning does not preclude two claim elements from being met by one prior art element. Pitney Bowes' own specification describes that its handle may be integral with the substrate, i.e., that the handle is formed from one edge of the substrate. Spec. ¶0018. The Examiner's interpretation that a handle can be any portion of Beeson's substrate [32] that can be gripped by a user's hand is reasonable, consistent with Pitney Bowes' Specification, and consistent with the ordinary meaning of the term as it would be understood by one with ordinary skill in the art.

For all these reasons Pitney Bowes has not shown the Examiner erred in finding claim 7 anticipated by Beeson.

Obviousness of Claim 4 over Beeson and Kikuchi

Claim 4 is dependent on claim 1 and further recites: "the second strip of material comprises open cell foam and brush bristles." Claim App'x. 17.



The Examiner finds that Beeson does not describe a second strip made from open cell foam material comprising bristles. Final Rejection 3-4; Ans. 4. The Examiner determined that it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the second strip from an open-cell foam, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. Final Rejection 4; Ans. 4; citing *In re Leshin*. The Examiner also determined that it would have been obvious to modify the second strip of Beeson by using open-cell foam since it is an obvious modification well known in the art to duplicate parts for a multiple effect. Final Rejection 4; Ans. 4; citing *In re Harza*. The Examiner further finds that modifying Beeson so that both strips are of open-cell foam would only enhance the cleaning capabilities of Beeson's invention. Final Rejection 4; Ans. 4. The Examiner also finds that Kikuchi teaches a cleaning sheet comprising bristles. Final Rejection 4; Ans. 4. The Examiner reasoned that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the second strip to include bristles as taught by Kikuchi so that the bristles will aid in cleaning contaminants such as dust attached to the sensors. Final Rejection 4; Ans. 4.

Pitney Bowes argues that both Beeson and Kikuchi teach away from the claimed invention. Br. 10. Pitney Bowes argues that Beeson teaches away from using open cell foam for the second strip because it explicitly teaches using two different pads. Br. 10. Pitney Bowes argues that Kikuchi teaches away from putting bristles through a roller because it teaches bristles parallel to the feed path and not perpendicular to the feed path. Br. 10.



Pitney Bowes' arguments are misplaced. Beeson's teaching of using two different pads does not suggest that using a strip of open cell foam would be unlikely to produce the objective sought by Pitney Bowes' invention. Kikuchi's teaching of a strip with bristles that are mounted on a substrate in a direction parallel to the feed path rather than perpendicular also does not suggest that putting bristles on a strip would be unlikely to produce the objective sought by Pitney Bowes. A teaching of something different does not, by itself, constitute a teaching away.

Moreover, the modification of Beeson's second strip [36] to comprise an open cell foam and brush bristles amounts to no more than the combination of familiar elements according to known methods which is obvious when it does no more than yield predictable results. Pitney Bowes does not direct us to objective evidence to demonstrate that modifying Beeson's second strip [36] to comprise an open cell foam and brush bristles would yield an unpredictable result or would be beyond the skill level of one with ordinary skill in the art.

Pitney Bowes also argues that Beeson is not suitable for its intended purpose in a system having a feed path with roller nips since the solvent would be pressed out in the nip. This argument is also unpersuasive. As explained before, the intended purpose of Beeson need not be preserved.

For all these reasons Pitney Bowes has not shown the Examiner erred in determining that claim 4 would have been obvious over Beeson and Kikuchi.

Obviousness of Claims 6, 9, 13, 14, and 17 over Beeson

Claims 6, 9, 13, 14 and 17 are ultimately dependent on claim 1. Claim App'x. 17-18. Claim 6 recites: "the substrate sheet has approximately



the planar dimensions of a number 10 envelope.” Claim App’x. 17. Claims 9, 13, 14 and 17 recite various dimensions of the first and second strips of the cleaning apparatus. Claim App’x. 17-18.

The Examiner finds that Beeson does not describe a substrate having the planar dimensions of a number 10 envelope. Final Rejection 4; Ans. 5. The Examiner finds that Beeson describes that the substrate can take on various dimensions. Final Rejection 5; Ans. 5. The Examiner further finds that Beeson does not describe that the first strip height is approximately twelve times the substrate thickness (claim 9), that the first strip height is 0.75 inches (claim 17), the first strip has a width of 0.5 inches (claims 13, 14, 17) and that the first distance is 2.5 inches (claims 13, 17). Final Rejection 5; Ans. 5. The Examiner determined that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Beeson's device since the only difference between the prior art and the claimed device is a recitation of relative dimensions. Final Rejection 4-5; Ans. 5. The Examiner further finds that a device having the claimed relative dimensions would not perform differently than the prior art device. Final Rejection 4-5; Ans. 5; citing MPEP 2144.04.

Pitney Bowes argues that Beeson teaches away from using a substrate with the planar dimensions of a number 10 envelop because it teaches using a page size device. Br. 11. Pitney Bowes further argues that Beeson teaches away since it explicitly teaches each pad having a height only twice the standard gap between the printer head and the substrate of only 1 mm and explicitly states that the figures are exaggerated. Br. 11.

Pitney Bowes’ arguments are unpersuasive. Beeson’s teaching of using a page size substrate does not suggest that using a substrate with the



dimensions of a number 10 envelope would be unlikely to produce the objective sought by Pitney Bowes' invention. Beeson's teaching of using strips with heights only twice the standard gap between the printer head and a substrate does not suggest that using a first strip with a height of approximately twelve times the substrate thickness, a height of 0.75 inches, a width of 0.5 inches with a first distance of 2.5 inches would be unlikely to produce the objective sought by Pitney Bowes' invention. Again, the teaching of something different does not, by itself, constitute a teaching away.

For all these reasons Pitney Bowes has not shown the Examiner erred in determining that claim 6 would have been obvious over Beeson.

Obviousness of Claims 11 and 12 over Beeson

Claims 11-12 are dependent on claim 1. Claim App'x. 17-18. Claim 11 recites: "the substrate comprises a semi-rigid vinyl material." Claim App'x. 17. Claim 12 recites: "the substrate comprises an ABS material." Claim App'x. 18.

The Examiner finds that Beeson does not describe that the substrate comprises a semi-rigid vinyl material or an ABS material. Final Rejection 5; Ans. 6. The Examiner determined that it would have been obvious to one with ordinary skill in the art at the time of the invention to form the substrate from a semi-rigid vinyl material or an ABS material, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. Final Rejection 5; Ans. 6; citing *In re Leshin*.



Pitney Bowes argues that Beeson teaches away from using semi-rigid vinyl material or ABS material since it describes using a cardstock weight backing sheet that is a single use item. Br. 12.

Pitney Bowes' arguments are misplaced. Beeson's teaching of using a disposable cardstock weight backing sheet does not suggest that using a semi-rigid vinyl substrate or ABS substrate would be unlikely to produce the objective sought by Pitney Bowes' invention.

For all these reasons Pitney Bowes has not shown the Examiner erred in determining that claims 11-12 would have been obvious over Beeson.

Obviousness of Claim 18 over Beeson and Gelardi

Claim 18 is dependent on claim 1 and further recites: "at least one of the first and second strips has the shape of a triangular prism." Claim App'x. 18.

The Examiner finds that Beeson does not describe the first strip having the shape of a triangular prism. Final Rejection 6; Ans. 6. The Examiner finds that it is well known to use triangular prisms to clean surfaces and finds that Gelardi teaches a cleaning sheet comprising triangular prisms located on the top surface. Final Rejection 6; Ans. 6; citing Gelardi's figs. 1, 4, 5. The Examiner determined that it would have been obvious at the time the invention was made to use a triangular prism shape for Beeson's cleaning strip as taught by Gelardi since it is well known and provides a means for cleaning. Final Rejection 6; Ans. 6.

Pitney Bowes argues that Beeson teaches away from using a triangular prism since Beeson describes a first strip for delivering a solvent using a rectangular pad. Br. 12-13. Pitney Bowes argues that "[i]t seems clear that one of skill in the art would not look to deliver a solvent using the



lower top surface area of a triangular prism.” Br. 13. Pitney Bowes argues that Beeson is not suitable for its intended purpose in a system having a triangular prism pad. Br. 13.

Pitney Bowes’ arguments are unpersuasive. Beeson’s teaching of using a rectangular pad for delivering solvent does not suggest that using a triangular prism shaped pad would be unlikely to produce the objective sought by Pitney Bowes’ invention.

Pitney Bowes also argues that Beeson is not suitable for its intended purpose in a system having a triangular prism pad. Br. 13. Pitney Bowes arguments are unpersuasive since, as already explained, the intended purpose of a reference (e.g., Beeson) need not be preserved.

For all these reasons Pitney Bowes has not shown the Examiner erred in determining that claim 18 would have been obvious over Beeson and Gelardi.

#### Obviousness of Claim 20 over Beeson

Claim 20 is dependent on claim 1 and further recites: “the first strip includes a leading edge and has the shape of a rectangular prism having an angled portion of the leading edge removed.” Claim App’x. 18.

The Examiner finds that Beeson does not describe that the rectangular first strip has a leading edge with an angled portion removed. Final Rejection 7; Ans. 7. The Examiner determined that at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to remove an angled portion of the leading edge because Applicant has not disclosed that the angled edge provides an advantage, is used for a particular purpose, or solves a stated problem. Final Rejection 7; Ans. 7. The Examiner determined that it would have been obvious to one of ordinary



skill in the art to modify Beeson to obtain the invention since it has been held that the shape or configuration of a claimed invention is a matter of choice, which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration or shape of the claimed strip was significant. Final Rejection 7; Ans. 7-8; citing *In re Dailey*.

Pitney Bowes argues that Beeson teaches away from using a triangular prism shape since Beeson describes a first strip for delivering a solvent using a rectangular pad. Br. 14. Pitney Bowes argues that “it seems clear that one of skill in the art would not look to deliver solvent using the lower top surface area as claimed.” Br. 14. Pitney Bowes also argues that Beeson is not suitable for its intended purpose in a system having a top surface as claimed. Br. 14.

Pitney Bowes’ arguments are substantially the same at the arguments presented for claim 18. *Compare* Br. 14 with Br. 12-13. For the same reasons explained before regarding claim 18, Pitney Bowes’ arguments are unpersuasive.

For all these reasons, Pitney Bowes has not shown the Examiner erred in determining that claim 20 would have been obvious over Beeson.

Obviousness of Claim 19 over Beeson and Kalbow

Claim 19 is dependent on claim 1 and further recites: “the first strip includes a top surface and has the shape of a rectangular prism having at least one notch in the top surface.” Claim App’x. 18.

The Examiner finds that Beeson does not describe that the rectangular first strip has a top surface with a notch. Final Rejection 6; Ans. 6. The Examiner finds that Kalbow teaches an open-cell foam block comprising



notches (i.e. grooves [12]) in the top surface. Final Rejection 6; Ans. 6-7. The Examiner determined that it would have been obvious to one of skill in the art at the time the invention was made to modify the top surface of the first strip of Beeson with the notched top surface of Kalbow since the notches would allow the apparatus to clean more effectively. Final Rejection 6; Ans. 7.

Pitney Bowes argues that Beeson teaches away from the combination since Kalbow's apparatus would have grooves parallel to the feed path, which would result in swaths of the printhead not being cleaned if used. Br. 13.

Pitney Bowes arguments are again misplaced. Beeson's teaching of using strips absent notches does not suggest that using a rectangular prism shaped strip having at least one notch in the top surface would be unlikely to produce the objective sought by Pitney Bowes' invention.

Furthermore, Pitney Bowes does not present objective evidence to demonstrate that the cleaning ability of Beeson's device would be compromised if the first strip is modified to include notches or grooves. To the contrary, Kalbow teaches that the grooves or notches result in sharp peripheral edges which increase the efficiency of the cleaning surfaces. Kalbow, col. 1, ll. 47-54; col. 3, ll. 39-53; fig. 1.

Pitney Bowes also argues that Beeson is not suitable for its intended purpose in a system having such a notched surface. Br. 13. As explained before, the intended purpose of Beeson need not be preserved.

For all these reasons Pitney Bowes has not shown the Examiner erred in determining that claim 19 would have been obvious over Beeson and Kalbow.



Anticipation of Claim 5 by Beeson

Claim 5 is ultimately dependent on claim 1 and further recites: “the first strip of material comprises lint-free, lead-free, non-abrasive open cell foam.” Claim App’x. 17.

Pitney Bowes argues that the Examiner has not demonstrated that Beeson describes a strip of material comprising “lint-free, lead-free, non-abrasive, open cell foam”. Br. 9. The Examiner does not direct us to, and we can not find, where Beeson describes a strip of material that is lint-free, lead-free, and open cell foam.

For this reason, the Examiner erred in finding claim 5 anticipated by Beeson.

G. CONCLUSION

1. Pitney Bowes has not shown that the Examiner incorrectly found that Beeson describes (1) a first strip that will function to vertically compress when drawn through a roller nip and partially vertically decompress when exiting a roller nip; and (2) a handle.
2. The Examiner incorrectly found that Beeson describes a first strip comprising lint-free, lead-free, non-abrasive open cell foam.
3. Pitney Bowes has not shown that Beeson teaches away from (1) using open cell foam for the second strip; (2) using a substrate with the planar dimensions of a number 10 envelope; (3) a first strip height approximately twelve times the substrate thickness; (4) a first strip height of 0.75 inches; (5) a first strip width of 0.5 inches; (6) a first distance of 2.5 inches; (7) a substrate of semi-rigid vinyl or ABS material; (8) a strip having the shape of a triangular prism; (9) a strip having the shape of a rectangular prism with at least one notch in the



top surface; and (10) a strip having the shape of a rectangular prism having an angled portion of the leading edge removed.

4. Pitney Bowes has not shown that Kikuchi teaches away from putting bristles through a roller.

H. ORDER

The decision of the Examiner rejecting claims 1-3, 7, 8, 10, 15 and 21 under 35 U.S.C. § 102(b) as anticipated by Beeson is affirmed.

The decision of the Examiner rejecting claim 5 under 35 U.S.C. § 102(b) as anticipated by Beeson is reversed.

The decision of the Examiner rejecting claim 4 as unpatentable under 35 U.S.C. § 103(a) over Beeson and Kikuchi is affirmed.

The decision of the Examiner rejecting claims 6, 9, 11-14, 17 and 20 as unpatentable under 35 U.S.C. § 103(a) over Beeson is affirmed.

The decision of the Examiner rejecting claim 18 as unpatentable under 35 U.S.C. § 103(a) over Beeson and Gelardi is affirmed.

The decision of the Examiner rejecting 19 as unpatentable under 35 U.S.C. § 103(a) over Beeson and Kalbow is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART



Appeal 2009-002932  
Application 10/707,470

MAT

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